



SERVICE MANUAL

AIR CONDITIONER

Please read this manual carefully before operating your set and retain it for future reference.

EXPLODED VIEW

ARNU07GSF14

ARNU09GSF14

ARNU12GSF14

P/NO : MFL67372008

<http://biz.lgservice.com>

1. Specification

Indoor

Indoor Unit Type			Art Cool		
Model			ARNU07GSF14	ARNU09GSF14	ARNU12GSF14
Power Supply	Ø / V / Hz		1/220~240/50	1/220~240/50	1/220~240/50
Cooling Capacity	kW		2.2	2.8	3.6
	Btu/h		7500	9600	12300
Heating Capacity	kW		2.5	3.2	4.0
	Btu/h		8500	10900	13600
Current	Nominal Running Current	A	0.3	0.3	0.3
Fan	Motor Type		BLDC	BLDC	BLDC
	Fan Type		TURBO FAN	TURBO FAN	TURBO FAN
	Motor Output(W) x No. of Unit		24	24	24
	Air Flow Rate	CMM	8.1 / 6.3 / 4.2	8.1 / 6.3 / 4.2	9.3 / 7.7 / 6.0
	(H / M / L)	cfm	286 / 222 / 148	286 / 222 / 148	328 / 275 / 212
	Capacitor	µF / Vac	150 / 450	150 / 450	150 / 450
	Drive		Direct	Direct	Direct
Coil	Row x Column x FPI		2 x 20 x 21FPI	2 x 20 x 21FPI	2 x 20 x 21FPI
Dimensions (W x H x D)	Body	mm(inch)	600 x 600 x 146 (23.6 x 23.6 x 5.8)	600 x 600 x 146 (23.6 x 23.6 x 5.8)	600 x 600 x 146 (23.6 x 23.6 x 5.8)
Net Weight	Body	kg (lbs)	15.4(33.2)	15.4(33.2)	15.4(33.2)
Air Filter			NEO PLAZMA	NEO PLAZMA	NEO PLAZMA
Sound Level (H / M / L)			dB(A)+1	38 / 32 / 27	44 / 38 / 32
Piping	Liquid	mm (inch)	6.35(1/4)	6.35(1/4)	6.35(1/4)
Connections	Gas	mm (inch)	12.7(1/2)	12.7(1/2)	12.7(1/2)
	Drain(OD/ID)	mm	16.2 / 12.2	16.2 / 12.2	16.2 / 12.2
Safety Devices			FUSE	FUSE	FUSE
Referigerant			R410A	R410A	R410A
Referigerant Control			EEV	EEV	EEV
Power cord			H05RN-F 1.5 x 3C	H05RN-F 1.5 x 3C	H05RN-F 1.5 x 3C
Transmission cable			CVV-SB 1.25 x 2C	CVV-SB 1.25 x 2C	CVV-SB 1.25 x 2C

Note:

1. Capacities are based on the following conditions:

- Cooling:
 - Indoor Temperature 27°C(80.6°F) DB/19°C(66.2°F) WB
 - Outdoor Temperature 35°C(95°F) DB/24°C(75.2°F) WB
- Heating:
 - Indoor Temperature 20°C(68°F) DB/15°C(59°F) WB
 - Outdoor Temperature 7°C(44.6°F) DB/6°C(42.8°F) WB
- Piping Length
 - Interconnecting Piping Length 7.5m
 - Level Difference of Zero

2. Wiring cable size must comply with the applicable local and national code.

3. The specification may be subject to change without prior notice for purpose of improvement.

Conversion Formula
kW = Btu/h x 0.0002931
cfm = CMM x 35.3

2. List of Functions

Category	Function	ARNU07GSF14/ARNU09GSF14/ARNU12GSF14
Air flow	Air supply outlet	3
	Airflow direction control(left & right)	X
	Airflow direction control(up & down)	Automatic
	Auto swing(left & right)	X
	Auto swing(up & down)	O
	Airflow steps(fan/cool/heat)	3/4/3
	Chaos swing	X
	Chaos wind(auto wind)	O
	Jet cool(Power wind)	O
	Swirl wind	O
Air purifying	Deodorizing filter	X
	Plasma air purifier	O
	Prefilter(washable / anti-fungus)	O
Installation	Drain pump	X
	E.S.P. control	X
	Electric heater(operation)	X
	High ceiling operation	X
Reliability	Hot start	O
	Self diagnosis	O
	Soft dry operation	O
Convenience	Auto changeover	O(only Sync.)
	Auto cleaning	O
	Auto operation(artificial intelligence)	O
	Auto restart operation	O
	Child lock	O(only wired remote controller)
	Forced operation	O
	Group control	O(only wired remote controller)
	Sleep mode	O(only Wireless remote controller)
	Timer(on/off)	O
	Timer(weekly)	O(only wired remote controller)
	Two thermistor control	O(only wired remote controller)
Individual control	Wide wired remote controller	PREMTB001 / PREMTBB01
	Deluxe wired remote controller	X
	Simple wired remote controller	PQRCVCL0Q(W)
	Wired remote controller(for hotel use)	PQRCHCA0Q(W)
	Wireless LCD remote control	PQWRHQ0FDB
Special function kit	Zone control	-
	CTIE	-
	Electro thermostat	-
	Remote temperature sensor	-
	Group control wire	PZCWRCG3
	Dry contact	PDRYCB100 / PDRYCB300 / PDRYCB400 / PDRYCB500

Note:

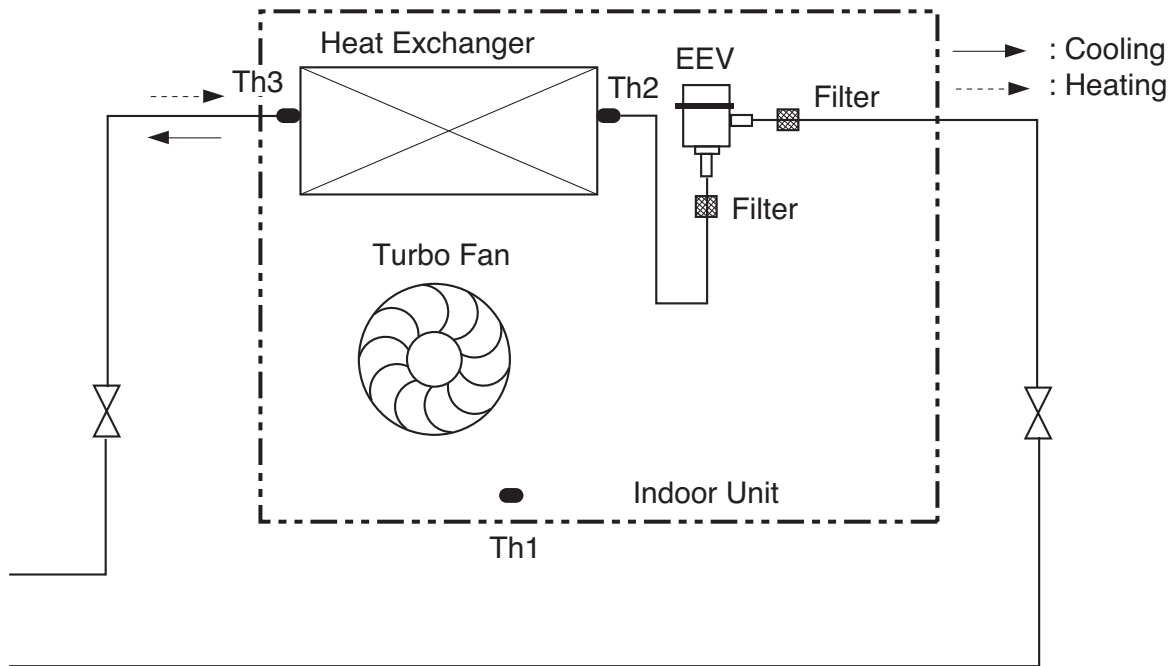
O : Applied, X : Not applied, - : No relation

*Option: Model name & price are different according to options, and assembled in factory with main unit.

*Accessory: Installed at field, ordered and purchased separately by the corresponding model name, supplied with separate package.

*(COLOR) : E(RED), V(SILVER), G(GOLD), 1(KISS)

3. Piping Diagrams

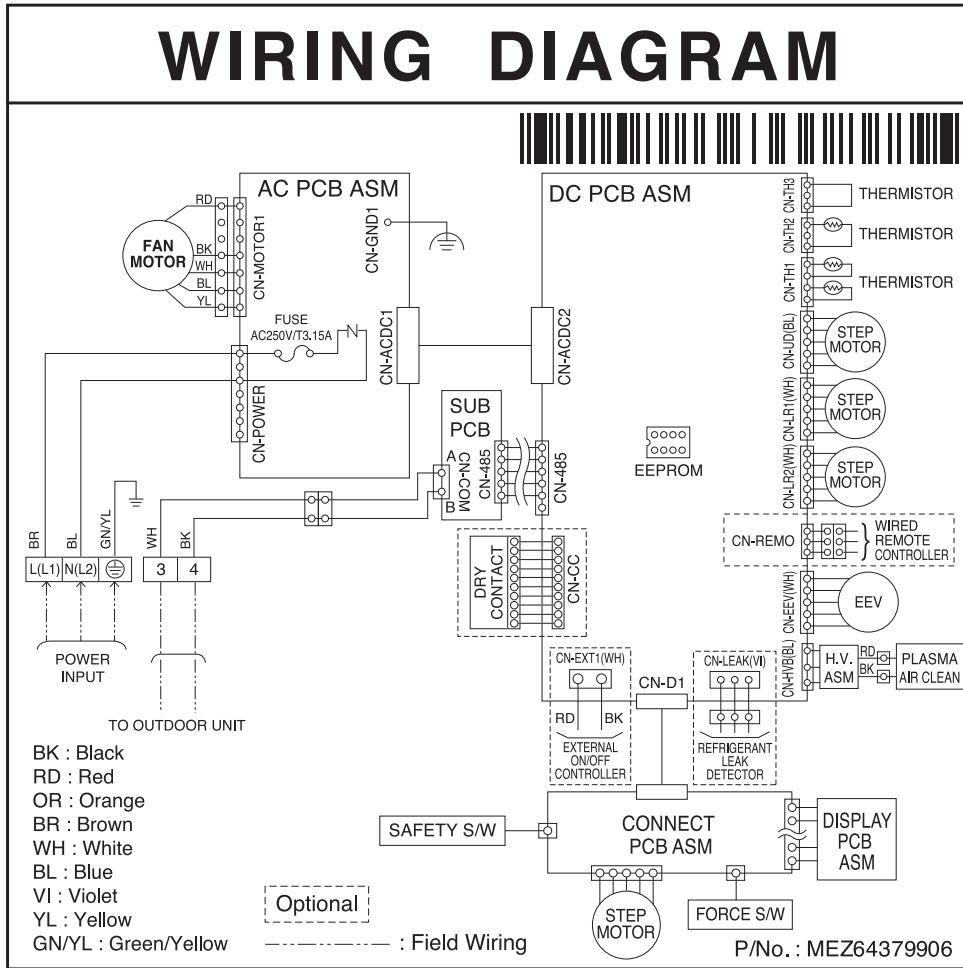


Model	Gas	Liquid
ARNU07GSF14 ARNU09GSF14 ARNU12GSF14	12.7(1/2)	6.35(1/4)

*(COLOR) : E(RED), V(SILVER), G(GOLD)

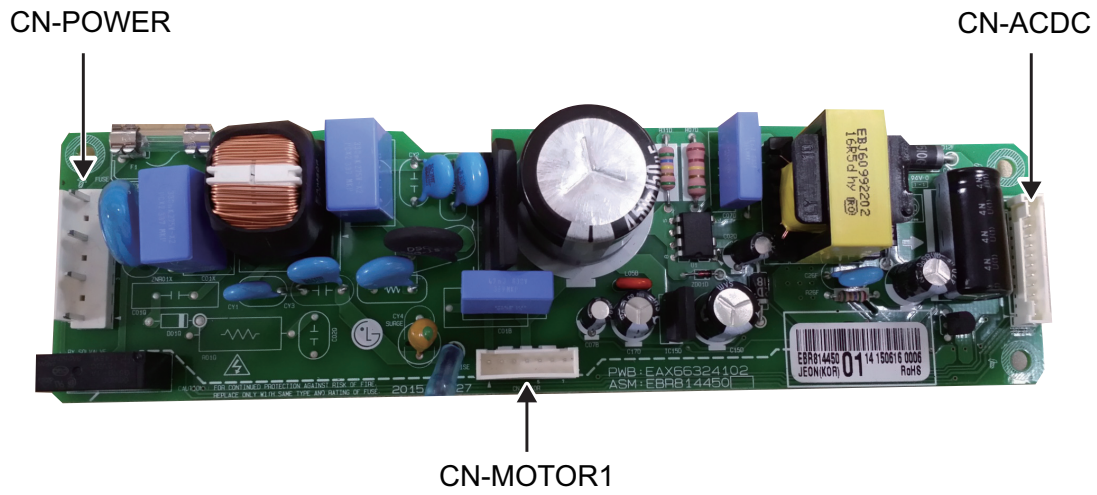
LOC.	Description	PCB Connector
Th1	Thermistor for inlet air temperature	CN_TH1
Th2	Thermistor for Evaporator in temperature	
Th3	Thermistor for Evaporator out temperature	CN_TH2

4. Wiring Diagrams

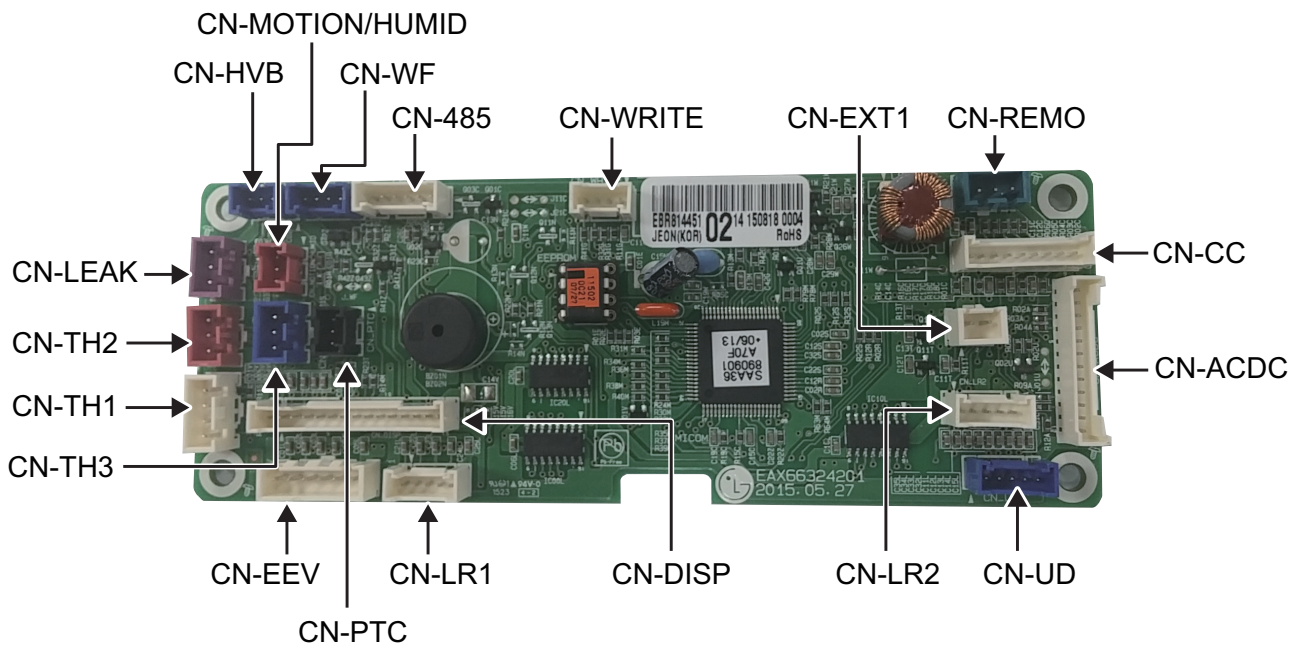


CONNECTOR NUMBER	LOCATION POINT	FUNCTION
CN-POWER	AC POWER SUPPLY	AC POWER LINE INPUT FOR INDOOR CONTROLLER
CN-MOTOR1	FAN MOTOR OUTPUT	MOTOR OUTPUT OF BLDC
CN-485	COMMUNICATION	COMMUNICATION BETWEEN INDOOR AND OUTDOOR
CN-ACDC	POWER TRANSMISSION	POWER TRANSMISSION FROM POWER PCB TO FUNCTION PCB
CN-EEV	EEV OUTPUT	EEV CONTROL OUTPUT
CN-DISP	DISPLAY	DISPLAY OF INDOOR STATUS
CN-LR1	STEP MOTOR	STEP MOTOR OUTPUT FOR LEFT/RIGHT
CN-LR2	STEP MOTOR	STEP MOTOR OUTPUT FOR LEFT/RIGHT
CN-UD	STEP MOTOR	STEP MOTOR OUTPUT
CN-TH1	ROOM/PIPE SENSOR	ROOM AND PIPE THERMISTOR
CN-TH2	EVA.OUT PIPE SENSOR	EVA.OUT PIPE THERMISTOR
CN-REMO	REMOTE CONTROLLER	REMOTE CONTROL LINE
CN-CC	DRY CONTACT	DRY CONTACT LINE
CN-HVB	AIR CLEAN	AIR CLEAN CONTROL

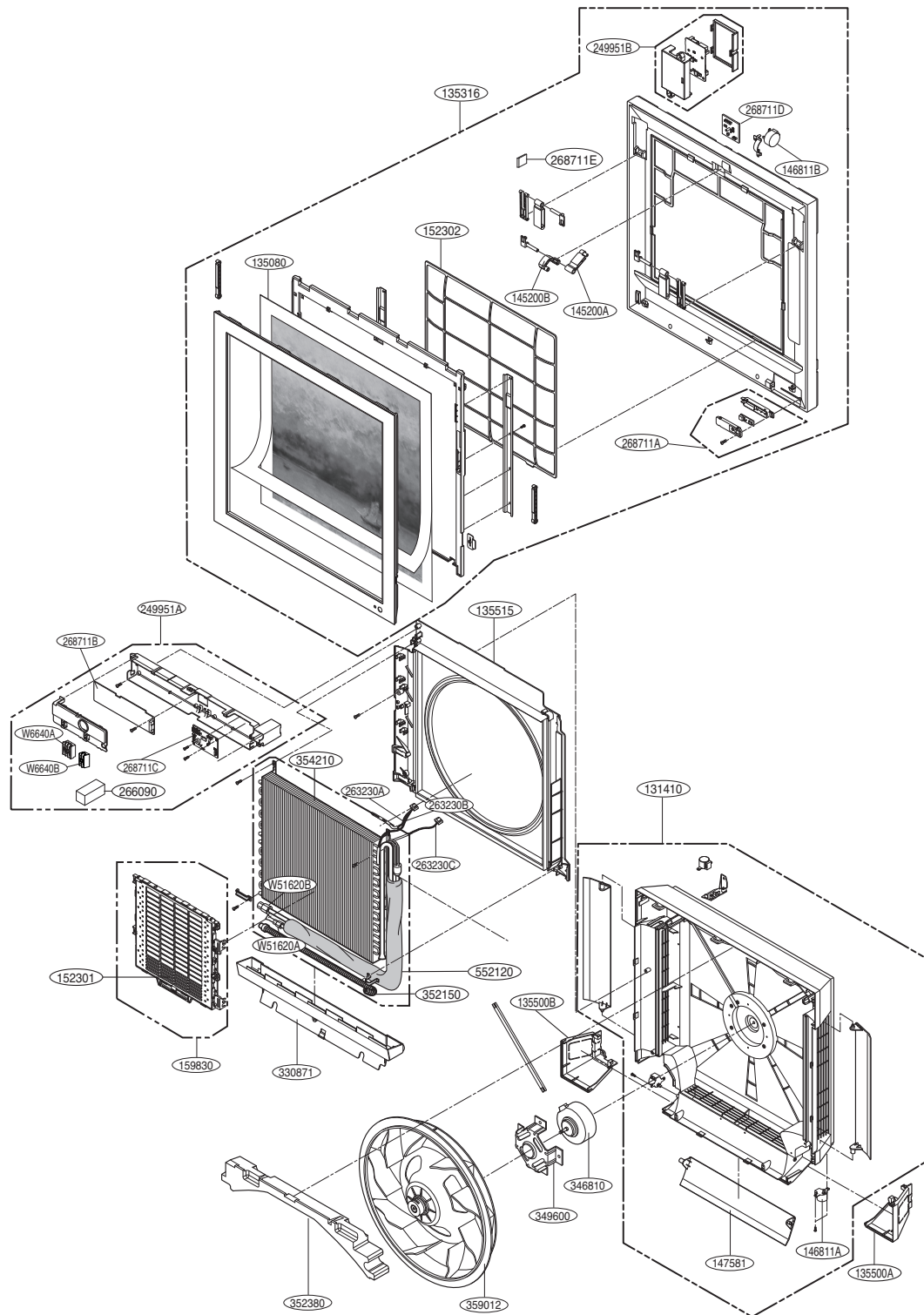
AC PCB



DC PCB



5. Exploded View



Thermistor 1	263230A	Air	Housing color : white
Thermistor 2	263230B	Evaporator In	Housing color : white
Thermistor 3	263230C	Evaporator Out	Housing color : red

Note) * Please ensure GCSC since the replacement parts may be changed depending upon the buyer's request.
Please check the correct parts in View RPL(Replacement Part List) on GCGS.
(GCGS Website <http://biz.lgservice.com>)

